## REMARKS

Introductory Comments

This amendment supplements the amendment filed on November 18, 2004 and is in response to the Notice of Non-compliant Amendment dated February 11, 2005. The Notice of Non-compliant Amendment states that each claim was not provided with the proper status identifier. This amendment provides the proper status identifier for each claim.

Reconsideration of the above-identified application in view of the above amendments and arguments set forth is respectfully requested.

Claims 41-65 and 73-74 are pending and under consideration. Claims 41, 47 and 65 have been amended. Claim 41 has been amended by inserting "A" before "*Eustoma* seed". Claims 47 and 65 have been amended by inserting periods in the abbreviation of "ATCC". No new matter has been added as a result of these amendments.

Drawings

The Examiner reminds Applicants that color photographs are acceptable only for examination purposes unless a petition is filed under 37 CFR 1.84(a)(2) and is granted permitting their use as acceptable drawings. Applicants will file a petition for acceptance of the color photographs upon allowance of the claims.

Rejection of Claims 41-44, 46-52, 64-65 and 73-74 Under 35 U.S.C. § 102(b)

Claims 41-44, 46-52, 64-65 and 73-74 are rejected under 35 U.S.C. § 102(b), as being anticipated by Harbaugh *et al.*, *HortScience*, Vol. 31, No. 6, pp. 1057-1058, 1996. (herein "Harbaugh").

Specifically, the Examiner asserts that Harbaugh teaches an *Eustoma* plant having a recessive allele for reduced apical dominance (page 1057, column 2), a seed thereof (page 1058, bottom of column 2), pollen and ovules thereof

which are inherent, a cutting thereof (page 1058, column 1) and methods for producing a hybrid plant thereof (page 1057, column 2).

The Examiner also states that Applicants' arguments are not persuasive because although Applicants argue that Harbaugh does not disclose or suggest seeds of inbred line 752 or hybrid plant 3087, the claims are not drawn to a particular genotype characterized in the specification by enough traits other than that caused by the reduced apical dominance. Additionally, the Examiner states that since the reduced apical dominance trait already existed and has been described in *Eustoma*, the claimed invention cannot be distinguished from the prior art.

Applicants respectfully traverse this rejection.

First, as stated in Applicants' previous Response, Applicants intend to deposit seeds for the inbred line 752 for claim 41 and a *Eustoma* plant from said seed for claim 47, which are described in the specification. Previously, Applicants have amended claims 59 and 65 to require the seed, plant or its parts have or are derived from a seed which has been deposited under A.T.C.C Accession Number 203392, which is hybrid 3087 as described in the specification.

Therefore, the instant claims are drawn to seeds, plants thereof, parts of the plants thereof, tissue cultures thereof, methods of producing plants thereof, hybrids thereof and cuttings of a plant thereof, that <u>are specific</u> to <u>inbred line 752 or hybrid 3087</u> as described in the specification.

Harbaugh does not disclose nor suggest seeds, plants thereof, parts of the plants thereof, tissue cultures thereof, methods of producing plants thereof, hybrids thereof and cuttings of a plant thereof, that <u>are specific</u> to <u>inbred line 752 or hybrid 3087</u>. Therefore, Harbaugh <u>does not</u> anticipate the instant claims.

Additionally, claim 41 recites "A *Eustoma* seed comprising <u>a recessive allele for reduced apical dominance</u>". Harbaugh <u>does not</u> disclose nor suggest "A *Eustoma* seed comprising <u>a recessive allele for reduced apical dominance</u>". Harbaugh neither discloses nor suggests <u>any</u> recessive allele in the disclosure, <u>or</u> a "reduced apical dominance". On page 4, lines 20-22, Applicants state that

the term "reduced apical dominance", or RAD, means that "apical dominance is reduced such that plants expressing this trait have increased basal branching when compared to commercial hybrids (emphasis added)." In addition, basal branching is defined on page 4, lines 23-24 as referring to "branches arising from the cotyledonary node below the first true leaves."

The new plant Harbaugh describes is 'Florida Blue' although other plants such as 'Blue Lisa', which 'Florida Blue' is a hybrid of, are described. These plants are described and compared with the plants of the present invention in the specification. It is important to note that to properly compare basal branching plants must be grown under the same environmental characteristics. In the Harbaugh publication, plants were grown under high light and warm conditions typical of Florida. As would be understood by one skilled in the art, such growing conditions shorten internodes and increases branching. Under the conditions of Example 4 of the present invention, the genetic component of basal branching can be compared. As stated in the specification on page 5, lines 4-5, *Eustoma* cultivars containing the RAD allele branch even under low light conditions.

Table 1 on page 11 of the specification lists characteristics of 'Blue Lisa', 'White Lisa', 'New Pink Lisa', 'Florida Blue', 'Florida Sky Blue', 'Florida Pink' (herein "commercial plants") and the plants of the present invention. Table 1 shows that these commercial plants have an average number of basal branches of about 0 while the plants of the present invention have an average number of basal branches of about 3 to about 4. The average number of total branches of the commercial plants is about 1 to about 3 while the average number of total branches of the plants of the present invention is from about 5 to about 10.These commercial plants are additionally compared to the plants of the present invention as shown in the photographs in Figures 2-4 and described on page 12, lines 1-11 of the specification. The photographs clearly show that 'Blue Lisa', 'Florida Blue', 'White Lisa', 'Pink Lisa' and 'Florida Pink' all have a lower number of basal branching as compared to the plants of the present invention. Therefore, the plants described by Harbaugh have decreased basal branching as

compared to those of the present invention. Thus, Harbaugh's plants do not have a "reduced apical dominance".

For these reasons, Applicants respectfully request withdrawal of the rejection of claims 41-44, 46-52, 64-65 and 73-74 under 35 U.S.C. § 102(b), as being anticipated by Harbaugh *et al.*, *HortScience*, Vol. 31, No. 6, pp. 1057-1058, 1996.

Rejection of Claims 41-65 and 73-74 Under 35 U.S.C. § 102(b)

Claims 41-65 and 73-74 are rejected under 35 U.S.C. § 102(b), as being anticipated by Griesbach *et al.*, *HortScience*, Vol. 23, No. 4, 1988 (herein "Griesbach").

Specifically, the Examiner asserts that Griesbach teaches an *Eustoma* plant having a recessive allele for reduced apical dominance (page 790, column 3 and page 790, column 2, first sentence under "Causes of variability" which indicates several variant plants produced by tissue culturing were basally branched, thus indicating reduced apical dominance), tissue culture thereof used to induce somaclonal variation (page 790, column 2, lines 14-17), seeds thereof (page 790, second paragraph), pollen and ovules thereof which are inherent, cuttings thereof (page 790, column 2, first full paragraph), methods for producing a hybrid thereof (page 790, bottom of column 1 and top of column 2) and a method for producing $F_1$ hybrid *Eustoma* seeds wherein the first and second parent plant exhibit reduced apical dominance (page 790, column 3, lines 15-17). Additionally, the Examiner states that although the claims are drawn to deposited lines, the specification does not characterize the claimed *Eustoma* lines other than in the recessive allele for reduced apical dominance. Therefore, the Examiner concludes that any *Eustoma* plant that has an increased basal branching would meet the Applicants' claims based on the deposited plants.

Applicants respectfully traverse this rejection. The Griesbach reference is deficient in a similar manner as the Harbaugh reference described above. Applicants' arguments are incorporated herein.

First, as stated above, the instant claims are drawn to seeds, plants thereof, parts of the plants thereof, tissue cultures thereof, methods of producing plants thereof, hybrids thereof and cuttings of a plant thereof, that are specific to inbred line 752 or hybrid 3087 as described in the specification. In particular, breeding histories are provided, as are general characteristics of the plants of the present invention. Griesbach does not disclose nor suggest seeds, plants thereof, parts of the plants thereof, tissue cultures thereof, methods of producing plants thereof, hybrids thereof and cuttings of a plant thereof, that are specific to inbred line 752 or hybrid 3087. Therefore, Griesbach does not anticipate the instant claims.

Additionally, claim 41 recites "A *Eustoma* seed comprising a recessive allele for reduced apical dominance". Griesbach does not disclose nor suggest "A *Eustoma* seed comprising a recessive allele for reduced apical dominance". Griesbach neither discloses nor suggests a recessive allele for "reduced apical dominance". As noted in the Griesbach publication, somaclonal variants having a branched phenotype were selected from tissue culture. On page 790, third column, Griesbach states: "Selfed progeny of the branched variants were raised to determine if the branched cuttings were genetically different. …. "[t]he frequency of genetically (somaclonal) branched variants in the tissue culture propagation was 1.5%." Griesbach further states on page 790, third column, "Not all genetic mutations are dominant and expressed in the first generation. This is also true of somaclonal variation. The $R_2$ somaclonal variants showed additional changes. Miniature and dwarf variants were obtained in the first generation. Unlike basal branching, these characteristics were masked in the first somaclonal variants." The miniature and dwarf variants are further described in the reference. Griesbach's disclosed recessive mutations were miniature and dwarf variants and not basal branched variants.

For these reasons, Applicants respectfully request withdrawal of the rejection of claims 41-65 and 73-74 under 35 U.S.C. § 102(b), as being anticipated by Griesbach *et al.*, *HortScience*, Vol. 23, No. 4, 1988

## CONCLUSION

Applicants respectfully submit that the claims comply with the requirements of 35 U.S.C. Section 102. Accordingly, a Notice of Allowance is believed in order and is respectfully requested.

Should the Examiner have any questions concerning the above, she is respectfully requested to contact the undersigned at the telephone number listed below. If the Examiner notes any further matters which the Examiner believes may be expedited by a telephone interview, the Examiner is requested to contact the undersigned.

If any additional fees are incurred as a result of the filing of this paper, authorization is given to charge deposit account no. 23-0785.

Respectfully submitted,

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